MEETING INFORMATION

October 8, 2019

9am - 5pm

DEQ, 1520 East 6th Avenue, Helena, MT Room 111

ATTENDEES

Lori Shaw, NorthWestern Energy

Ben Thomas, Dept. Ag

Doug Hardy, MECA

Diego Rivas, NW Energy Coalition

Kathy Hodly

Peggy Trenk, TSRA

Pat Wise, MDT

John Tubbs, DNRC

Ben Brouwer, DEQ

Tom Armstrong, Madison River Group

Lauren Berka, DOA

Bo Downer, NWPCC

Brian Dekier, NWPCC

Caitlin Piserchia, MT Sierra Club

Chris Dorrington, DEQ

Andrew Valainis, MREA

Chuck McGraw, NRDC

Cody Ferguson, Northern Plains

Dave Klemp, DEQ

Sally Ericsson

Laura Wood-Peterson

MINUTES

9:00 Welcome and Introductions

Committee Co-Chairs - Tracy Stone-Manning and Shaun McGrath

See attendance sheet

9:30 Exec Order No. 8-2019 and the charge to the Mitigation Strategies Committee

Council Co-Chairs – Patrick Holmes and Kathy Hadley

- Reviewed EO for deliverables
- Updated calendar: Summit postponed, deliverables still on calendar laid out in EO.

10:00 Review Agenda and Goals for the meeting, as well as the working rules for how the

Committee will approach its task (Patrick Cummins, CNEE)

- Reviewed EO
- Reviewed Committee Guidance Strawman
- Goal of today: Identify topic areas that this group wants to focus on and identify volunteers to research those topic areas.

10:30 Break

- 10:45 **Carbon Emissions Inventory and Emissions Trends** (Patrick Cummins) Using currently available data on Montana, Patrick will help frame the work of Committee by presenting what we know about our current emissions in the State. This will be broken down by sectors, including power generation, buildings, transportation, etc.
 - See inventory presentation slides

12:00 Lunch

1:00 **Power Sector Goal — Carbon Neutral by 2035** (Committee Co-Chairs) — This will be a discussion about how the Committee can approach the task of developing recommendations to meet this goal. What are the groupings of topic areas that we can assign to members to come up with recommendations based on the topic.

Areas of Interest "Buckets":

- Carbon Capture Utilization and Storage (CCUS) & Cleaner Technologies
 - o Is there a pathway for carbon capture at Colstrip?
 - Is there a future where there's new generation with CCUS?
 - Potential for bioenergy and CC for negative emissions?
 - Volunteers for this bucket: Shaun McGrath with help from Innovation Committee
- Energy Efficiency*
 - Include demand response
 - Volunteers for this bucket: Energy Bureau at DEQ, Diego Rivas, Chuck Magraw, Tracy Stone-Manning, and Gary Wiens (not at meeting, but volunteered after-the-fact)
- Renewable Energy*
 - o Large and small scale
 - Include consideration of storage and capacity
 - Volunteers for this bucket: Energy Bureau at DEQ, Andrew Valainis, Lori Shaw, Caitlin Piserchia, and Gary Wiens (not at meeting, but volunteered after-the-fact)

- Electric peak/capacity challenges, energy storage
 - Identify strategies to maintain grid reliability with increased intermittent supply and increased electrical load due to electrification of transportation and other loads.
 - Volunteers not assigned; cross cutting issue to be considered by Renewable Energy, Energy Efficiency, and Transmission/Markets groups
- Inventory and Modeling
 - o Business as usual vs. Net Zero
 - Understand what current trajectory is
 - Some percentage of emissions that can be reduced with current technologies and current economics
 - What is the emission number we want to reach by 2035?
 - What is the current energy mix in MT for retail load in MT, how is the current retail load in MT being met? All resources apply, not just GHG emitters.
 - o How do planned and potential power plant retirements affect emissions?
 - Potential collaboration with Paul Gannon at MSU
 - Possibly meet with the Committee
 - o E3 data analyzing 100% renewable targets in northwest may be useful
 - Volunteers for this bucket: Energy Bureau at DEQ and Chuck Magraw (inventory of current electricity sales*); Bo Downen, Brian Dekiep, Tom Armstrong, and Patrick Cummins
- Transmission & Electricity Markets
 - Exports
 - o RTO/ISO
 - EIM
 - Day Ahead
 - Distribution system
 - Volunteers for this bucket: Brian Dekiep, Chuck Magraw, and David Hoffman (NWE)
- Questions to answer in each of the topic areas above:
 - O What do we know?
 - O What don't we know?
 - O How do we use this in a model?
 - What are the challenges?
 - o What does the state need moving forward to understand the challenges?
- 2:30 Break
- 2:45 **Economy-Wide Goal**: Carbon Neutral by date TBD by Council (Committee Co-Chairs) This conversation will identify the various sectors beyond electricity generation, for

which the Council should develop recommendations for reducing emissions. Additionally, the Committee will discuss how it will approach the task of making a recommendation for when the economy-wide goal should be accomplished.

E.O. Section 1C - Areas of Interest "Buckets":

- Farms, Ranch Land, Forestry & Wood Products
 - Methane and Nitrous Oxide emission issues related to livestock and fertilizer
 - Storage of carbon in soil, trees, wood products
- Volunteers for this bucket: Ben Thomas (Ag), Laura Wood-Peterson, and John Tubbs (DNRC)
- Transportation*
 - Transportation system
 - Aviation, freight, construction equipment
 - Electric Vehicles & charging infrastructure
 - Other alternative transportation
 - Volunteers for this bucket: Bo Downen, Brian Dekiep, Chuck Magraw, and DEQ Energy Bureau
- Industrial*
 - Industrial plant emissions
 - Volunteers for this bucket: Alan Olson, and DEQ Air Quality Bureau
- Residential & Commercial
 - Electrification
 - Energy Efficiency
 - Building codes for new structures
 - Volunteers for this bucket: Chuck Magraw, Kathy Hadley, Diego Rivas, and Brian Dekiep
- Oil & Gas*
 - o Related to production & transmission, but not end use.
 - Volunteers for this bucket: Alan Olson, Chuck Magraw, DEQ Air Quality Bureau, and Tracy Stone-Manning
- State Agency Actions
 - Government operations
 - Fleet fuel reduction
 - Volunteers for this bucket: Lauren Berka, and Pat Wise (fleet)
- Tribal, Local Gov't plans
 - Identify how to incorporate and support local/tribal planning

- Coordinate with adaptation committee members
- o Volunteer: Caitlin Piserchia, and Andrew Valainis
- Working definition of economy-wide net neutral carbon emissions: a state in which annual economy-wide emissions are balanced by annual carbon sinks in the state, above a TBD baseline.

4:00 Public Comment

- Cody Ferguson provided comments on behalf of the Northern Plains Resource Council.
- 4:30 Discuss next steps; set schedule for future meetings and dates for when draft recommendations will be due; and make assignments as needed. (Patrick Cummins)
 - Draft timeline:
 - November 8: First-draft white papers by sector due to Director McGrath, following Committee Guidance Strawman document
 - o November 15: GHG mitigation committee meeting, time/location TBD
 - o Nov/Dec: Full Council Meeting, date/time/location TBD
 - o January: Full Council Meeting
 - January 31: Draft posted for Public Comment
 - The role of DEQ staff in subcommittees (as denoted by an asterisk(*)) is to facilitate dialogue and meetings, and provide input where appropriate and as resources allow.

5:00 Adjourn